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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.         | CONFIRMATION NO.       |
|--|-------------|----------------------|-----------------------------|------------------------|
| 10/566,527   | 08/28/2006  | Micha Heinz          | AP10991                     | 7208                   |
| 52203 7590 06/29/2007<br>CONTINENTAL TEVES, INC.<br>ONE CONTINENTAL DRIVE<br>AUBURN HILLS, MI 48326-1581 |             |                      | EXAMINER<br>TSAI, CAROL S W |                        |
|  |             |                      | ART UNIT<br>2857            | PAPER NUMBER           |
|  |             |                      | MAIL DATE<br>06/29/2007     | DELIVERY MODE<br>PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                     |  |
|------------------------------|--------------------------------------|-------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/566,527 | <b>Applicant(s)</b><br>HEINZ ET AL. |  |
|                              | <b>Examiner</b><br>Carol S. Tsai     | <b>Art Unit</b><br>2857             |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 11-20 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. In claim 11, the body of the claim does not appear to support the preamble. The preamble says it is a method of determining a differential pressure of a fluid of a fluid by utilizing an electromagnetically drivable actuator for pressure measurement, but the differential pressure of a fluid of a fluid by utilizing an electromagnetically drivable actuator for pressure measurement is never determined.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11-20 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

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5. In claim 11, the body of the claim does not appear to support the preamble. The preamble says it is a method of determining a differential pressure of a fluid of a fluid by utilizing an electromagnetically drivable actuator for pressure measurement, but the differential pressure of a fluid of a fluid by utilizing an electromagnetically drivable actuator for pressure measurement is never determined. This leads to a problem under 101, in that the method does not produce a tangible result.

*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 11-14 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by U. S. Patent No. 5,012,722 to McCormick.

With respect to claims 11, 12, and 21, McCormick discloses a method of determining a differential pressure of a fluid by utilizing an electromagnetically drivable actuator (4) for pressure measurement, which actuator comprises an electromagnetic arrangement, in which a mechanical actuating element is movable by means of actuation of an exciter coil, and a valve actuating device for opening and closing the actuator, the method comprising the following steps: exerting a mechanical force with the actuating element for opening and/or closing the actuator on the valve actuating device (see col. 1, lines 10-30), controlling the position of the

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valve actuating device or the magnetic force by means of an electric control circuit, and measuring the hydraulic force acting on the valve actuating device (see col. 6, lines 21-51).

As to claim 13, McCormick also discloses the magnetic force being determined from magnetic flux (see col. 3, lines 19-22).

As to claim 14, McCormick also discloses opening or closing a passage between the closing element and a valve seat by means of a resetting element when the exciter coil is not excited (see col. 5, lines 14-27).

#### *Allowable Subject Matter*

8. Claims 15-20 would be allowable if rewritten to overcome the rejections under 35 U.S.C. 112, 2nd paragraph and 35 U.S.C. 101, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Natali discloses an actuator including a solenoid with a ferromagnetic nucleus which slides inside the solenoid.

Wright et al. disclose an improved method for controlling the landing velocity of an armature in an electromechanical actuator, such as a fuel injector, fuel pressure regulator, or engine valve actuator.

Seale et al. disclose servo control using ferromagnetic core material and electrical

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windings being based on monitoring of winding currents and voltages and inference of: magnetic flux, a force indication; and magnetic gap, a position indication.

Mizutani et al. disclose hydraulic pressure control apparatus including a hydraulic pressure source device operable according to a control amount, to generate an output pressure thereof on the basis of a fluid pressure corresponding to an operating force of a manually operable operating member, and on the basis of a control pressure controlled by a pressure control actuator according to a control amount, and further including an actuator control device including a final-control-value determining portion operable to determine a final value of the control amount, which is used to control the pressure control actuator, and wherein the final-control-value determining portion determines the final value on the basis of at least two provisional control values selected from (a) at least one first provisional control amount each determined by at least one physical quantity including at least one of (i) an operating-state value representative of an operating state of the operating member and (ii) the output pressure, and (b) at least one second provisional control amount each determined by a combination of physical quantities including at least two of the operating-state value, the output pressure and the control pressure.

### ***Contact Information***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carol S. Tsai whose telephone number is (571) 272-2224. The examiner can normally be reached on M-F (8:00-4:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eliseo Ramos-Feliciano can be reached on 571-272-7925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

cswl

June 26, 2007

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CAROL S.W. TSAI  
PRIMARY EXAMINER